

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANT :	Lundy LEWIS	CONFIRMATION No.:	4215
SERIAL NUMBER :	09/577,225	EXAMINER:	Tan D. Nguyen
FILING DATE :	May 23, 2000	ART UNIT:	3629
FOR :	METHOD AND APPARATUS FOR SERVICE LEVEL MANAGEMENT (SLM)		

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**Appellant's Brief on Appeal  
Under 37 C.F.R. § 41.37**

**Mail Stop Appeal Brief - Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Further to the Notice of Appeal dated **April 20, 2007**, Appellant hereby submits this Appellant's Brief of Appeal pursuant to 37 C.F.R. § 41.37.

The Director is authorized to charge the fee for filing an Appeal Brief pursuant to 37 C.F.R. § 41.20(b)(2), as well as any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 033975 (**Ref. No. 019287-0317271**).

## **Appeal Brief Under 37 C.F.R. § 41.37**

### **I. Real Party in Interest**

Computer Associates Think, Inc. owns the entire right, title, and interest to the present application. Accordingly, Computer Associates Think, Inc. is the real party in interest, although the recorded assignment indicates that Aprisma Management Technologies, Inc. is the present assignee of the application.

### **II. Related Appeals and Interferences**

The present application claims priority to U.S. Provisional Patent Application Serial No. 60/135,492, filed May 24, 1999, entitled "Method and Apparatus for Service Level Management." Appellants are also pursuing Appeals to the Board of Patent Appeals and Interferences in the following applications, each of which also claim priority to the U.S. Provisional Patent Application identified above:

(1) U.S. Patent Application Serial No. 09/577,232, entitled "Method and Apparatus for Service Analysis in Service Level Management (SLM)," filed May 23, 2000. The Examiner's Answer was mailed August 13, 2007;

(2) U.S. Patent Application Serial No. 09/577,224, entitled "Method and Apparatus for Reactive and Deliberative Service Level Management (SLM)," filed May 23, 2000. Appellant's Request for Oral Hearing was filed July 17, 2007; and

(3) U.S. Patent Application Serial No. 09/577,231, entitled "Method and Apparatus for Component to Service Mapping in Service Level Management (SLM)," filed May 23, 2000. Appellant's Brief on Appeal was filed August 29, 2007.

### **III. Status of Claims**

Pending: Claims 1, 3-6, 10-13, and 30-33 are pending.

Cancelled: Claims 2, 7-9, 14-18, 20, and 28-29 are cancelled.

Withdrawn: Claims 19 and 21-27 are withdrawn from consideration.

Rejected: Claims 1, 3-6, 10-13, and 30-33 stand rejected.

Allowed: No claims have been allowed.

On Appeal: Claims 1, 3-6, 10-13, and 30-33 are appealed.

#### IV. Status of Amendments

Appellant filed an After-Final Amendment to the claims on January 23, 2007 in response to the Final Office Action dated October 23, 2006 (hereinafter "Final Action"). In the Advisory Action dated March 26, 2007, the Examiner entered the Amendment for purposes of Appeal.

#### V. Summary of Claimed Subject Matter

The following exemplary citations to the Specification and/or drawing figures are not exclusive, as other examples of support for claimed subject matter exist. As such, the following citations should not be viewed as limiting.

##### Independent Claim 1

According to various aspects of the invention, as recited in claim 1, for example, a method for service level management for an entity's network-supported business process may be provided (e.g., Specification at 1, line 29 – 2, line 12). For example, providing the service level management may include, among other things, identifying a plurality of services that the network provides for the entity in performance of the business process (e.g., Specification at 2, lines 13-29). Thus, the business process may be supported by the plurality of services, and each of the plurality of services may in turn be supported by a plurality of network components (e.g., Specification at 3, lines 1-5).

Managing service level, therefore, can include identifying a service parameter providing a measure of service level for one or more of the plurality of services (e.g., Specification at 20, lines 19-21), as well as a component parameter providing a measure of performance for one of the plurality of network components (e.g., Specification at 20, lines 22-25). A relationship between the component parameter and the service parameter may be identified (e.g., Specification at 20, lines 26-28).

Accordingly, by monitoring a value of the component parameter, for example, via a management protocol understood by an electronic device associated with the network (e.g., Specification at 21, line 11 – 23, line 4), an action can be taken in the electronic device to determine the service level of the at least one service from the value of the component parameter (e.g., Specification at 20, lines 11-30), thus providing service level management of the business process (e.g., Specification at 21, lines 1-10; and 23, lines 5-10).

**VI. Grounds of Rejection to be Reviewed on Appeal**

Claims 1, 3-6, 10-13, and 30-33 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,446,200 to Ball (“Ball”), or in the alternative, under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ball. Final Action at 2-7.

**VII. Argument**

The Examiner has rejected claims 1, 3-6, 10-13, and 30-33 under § 102(e) as allegedly anticipated by Ball, or in the alternative, under § 103(a) as allegedly being unpatentable over Ball. Final Action at 2-7. This rejection is improper, and must be reversed, for at least the reason that the Examiner has failed to establish either a *prima facie* case of anticipation or obviousness. In particular, Ball fails to disclose, teach, or suggest each and every feature of the claimed invention. For at least this reason, the rejection is improper and must be reversed.

More particularly, Ball fails to disclose, teach, or suggest at least the features of “identifying . . . a service parameter that provides a measure of a service level,” “identifying a component parameter that measures a performance of one of the plurality of network components,” and “identifying a relationship between the component parameter and the service parameter,” as recited in claim 1, for example. Nonetheless, the Examiner alleges that Ball discloses these features at cols. 3-4; col. 31, lines 1-67; and Figs. 29a-b, which relate to collecting metrics in a network (e.g., data transmission, flow aggregation, distribution, and packet loss), and to correlating the collected metrics to service level policies deployed in the network. Final Action at 5. Appellant disagrees with the Examiner’s assessment.

Specifically, as recited in claim 1, the claimed invention relates to managing service level for a service (e.g., a network service, such as providing Internet access). For example, the service level depends on a “service parameter,” a “component parameter,” and “a relationship between the component parameter and the service parameter.” In other words, the service level can be represented by the “service parameter,” which represents the performance of the service (e.g., network availability, reliability, response time, etc.). On the other hand, the “component parameter” represents the performances of the various network components supporting the service. Thus, the “service parameter” and the “component parameter” represent technically distinct things, in that the “service parameter” represents the performance of the service, whereas the “component parameter” represents the performance of a network component supporting the service. As a result, by “identifying a relationship between the component parameter and the service parameter,” the service level can be determined “from the [monitored] value of the component parameter.”

In contrast, the Examiner identifies the same portions of Ball as allegedly disclosing both the “service parameter” and the “component parameter.” Specifically, the Examiner alleges that Ball discloses “transmission of data, or flow aggregation and distribution processes,” and “service quality packet loss,” which the Examiner equates with both the “service parameter” and the “component parameter.” Final Action at 5. However, for at least the reasons given above, the “service parameter” and the “component parameter” relate to different performance abstractions that can be used to manage service level for a service. Thus, for at least the reason that the Examiner alleges equivalent aspects of Ball to disclose technically distinct parameters, the rejection is improper and must be reversed.

Moreover, the rejection is also improper because the identified portions of Ball do not disclose, teach, or suggest both a “service parameter” and a “component parameter,” which measure service performance and component performance, respectively. Rather, the identified passages of Ball relate to collecting device data “in the form of raw accounting data specific to the device type” (col. 4, lines 27-30). For example, “a connected device initiates a transmission of data to the accounting process” (col. 4, lines 39-42), and “a flow aggregation process . . . [provides] a central collection point for all network accounting records” (col. 4, lines 61-66).

Ball then uses the collected raw data to analyze service quality, for example, by “determining whether there has been packet loss,” wherein “packet loss is a statistical phenomena” (col. 31, line 52 – col. 32, line 18).

Accordingly, the relied upon passages unequivocally indicate that Ball collects, aggregates, and analyzes data associated with network components in conjunction with providing a statistical measure of packet loss. However, at best, the statistical measure of packet loss relates only to “a measure of a service level.” Even assuming *arguendo* that the measure of packet loss corresponds to the claimed “service parameter” (a point that Appellant does not concede), the relied upon portions of Ball nonetheless fail to disclose, teach, or suggest “a component parameter” that provides a performance measure for a network component, as recited in claim 1, for example. For instance, although Ball collects raw accounting data from specific devices, Ball only uses the collected data to provide performance measures based a correlation “to the policy that was defined and actually deployed in the network” (col. 31, lines 25-38).

Thus, Ball does not identify any device-specific data used as a “component parameter that measures a performance of [a network component],” as recited in claim 1, for example. In fact, Ball relates only to collecting data in a network for “capturing quality of service . . . [to] validate performance of service level agreements” (col. 31, lines 39-42). As a result, Ball focuses entirely on collecting and analyzing data in a way that provides, at best, “a measure of a service level.” As such, even though Ball appears to utilize data associated with specific network components to validate the measure of service level, Ball does not use the specific network component data to measure performance for the network components themselves.

Accordingly, Ball relates to correlating network component data to service level policies, in which the correlation can be a function of many different factors in the network. Thus, Ball does not monitor or otherwise identify a parameter associated with a network component that specifically measures the performance of the network component. For at least this reason, Ball fails to disclose, teach, or suggest at least the feature of “identifying a component parameter that measures a performance of one of the plurality of network components,” as recited in claim 1, for example. For at least this reason, the rejection is improper and must be reversed.

Furthermore, in response to Appellant's previous arguments addressing these issues, the Examiner alleges that Ball discloses "monitoring and detecting of the 'transmission data packet losses,' and '% availability' and inputting these [*sic*] information into an 'Accountant' software for billing and monitoring of services provided." Thus, the Examiner appears to allege that packet loss and percentage of availability, as disclosed by Ball, are each "a component parameter that measures a performance of one of the plurality of network components." Further, in the Advisory Action, the Examiner continues to allege that monitoring packet loss throughout an entire network constitutes identifying a component parameter. Appellant disagrees with the Examiner's assessment.

More particularly, the Examiner appears to overlook the fact that the claimed invention recites "a component parameter that measures a performance of one of the plurality of network components." For example, the Examiner relies heavily on Ball disclosing a monitor that "examines each packet of a network flow that passes through the device associated with the monitor." *See, e.g.*, Advisory Action at 2. However, extracting information from a packet does not measure the "performance of one of the plurality of network components." Rather, Ball examines the packets to measure the statistical packet loss phenomena throughout the entire network, which relates, at best, to a service level policy deployed in the network (e.g., a contract for network services could include an agreement that packet loss must remain below a given threshold).

However, Ball does not disclose, teach, or suggest measuring packet loss, inspecting packets, or monitoring or otherwise identifying a specific component parameter "that measures a performance of one of the plurality of network components," as recited in claim 1, for example. For example, even when Ball discusses measuring the percentage of availability for a specific device (e.g., a router), the percentage of availability is not measured by "identifying" or "monitoring" a "component parameter that measures a performance of one of the plurality of network components," as recited in claim 1. Rather, Ball only discloses measuring data flows, or network traffic, to determine how data associated with a device affects a specified service level policy. In other words, Ball does not use network component data to measure the performance any given network component. Instead, the data collected

from the specific component relates, at best, to a network-wide measure of service level. By contrast, the claimed invention recites, among other things, “identifying a component parameter that provides a measure of performance” for a specific network component.

Accordingly, for at least the foregoing reasons, Ball does not disclose, teach, or suggest every feature of claim 1. As such, the rejection is improper and must be reversed. Dependent claims 3-6, 10-13, and 30-33 depend from and add features to independent claim 1. Accordingly, Ball also fails to disclose, teach, or suggest each and every feature of claims 3-6, 10-13, and 30-33. Accordingly, the rejection of these claims is likewise improper and must be reversed for at least the same reasons.

**VIII. Claims Appendix**

The pending claims (claims 1, 3-6, 10-13, and 30-33) are attached in **Appendix A**.

**IX. Evidence Appendix**

**Appendix B: None.**

**X. Related Proceedings Appendix**

**Appendix C: None**

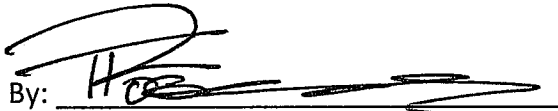


**Conclusion**

For at least the foregoing reasons, Appellant respectfully submits that the claims are allowable over the references relied upon by the Examiner. Therefore, reversal of the rejections is respectfully requested.

Date: **September 20, 2007**

Respectfully submitted,

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**Appendix A: Claims Appendix**

1. **(Previously Presented)** A method of providing service level management for a business process of an entity, the business process supported by a network, the method comprising steps of:

identifying a plurality of services that the network provides for the entity in performance of the business process, the business process being supported by the plurality of services, each of the plurality of services being supported by a plurality of network components;

identifying, for at least one of the plurality of services, a service parameter that provides a measure of a service level of the at least one of the plurality of services;

identifying a component parameter that measures a performance of one of the plurality of network components;

identifying a relationship between the component parameter and the service parameter;

monitoring a value of the component parameter via a management protocol understood by an electronic device associated with the network; and

taking an action in the electronic device to determine the service level of the at least one of the plurality of services from the value of the component parameter to provide service level management of the business process.

2. **(Cancelled)**

3. **(Previously Presented)** The method of claim 1, further comprising a step of, controlling the one of the plurality of network components to establish the service.

4. **(Previously Presented)** The method of claim 1, wherein software agents are utilized to monitor the one of the plurality of network components.

5. **(Previously Presented)** The method of claim 4, wherein the software agents monitor and control the value of the component parameter.

6. **(Previously Presented)** The method of claim 4, wherein the software agents receive one or more inputs and perform one or more actions based on the one or more inputs.

7-9. **(Cancelled)**

10. **(Previously Presented)** The method of claim 1, further comprising a step of, comparing the service parameter to the service level.

11. **(Previously Presented)** The method of claim 1, further comprising a step of, incorporating in a service level agreement the service level for the service.

12. **(Previously Presented)** The method of claim 11, further comprising a step of reporting whether the service level of the service level agreement is satisfied for a designate time.

13. **(Previously Presented)** The method of claim 1, wherein each of the plurality of network components are represented by one or more component parameters values stored at the plurality of network components, and the monitoring step comprises a step of accessing the values at the plurality of network components using a management protocol.

14-18. **(Cancelled)**

19. **(Withdrawn)** In a system associated with a network, a method of providing service level management in the network, the method comprising steps of:

receiving at an interface of the system input from a user identifying network related services required by a business process, the services being composed of a plurality of network components;

receiving at the interface of the system input from the user identifying service parameters marked by service levels for each service, each of the service parameters is a variable whose value is an index representative of an operational characteristic of an associated service; and

receiving at the interface of the system a request from the user to evaluate the service parameters to monitor the service levels of each service to provide service level management.

20. **(Cancelled)**

21. **(Withdrawn)** The method of claim 19, further comprising a step of, receiving at the interface of the system input from the user identifying component parameters for each component.

22. **(Withdrawn)** The method of claim 21, further comprising steps of, receiving a plurality of values for the component parameters; and outputting a value of at least one service parameter.

23. **(Withdrawn)** The method of claim 22, further comprising a step of, receiving input from the user identifying one or more agents to monitor each of the component parameters.

24. **(Withdrawn)** The method of claim 23, further comprising a step of, integrating management of the components with management of the services.

25. **(Withdrawn)** The method of claim 21, further comprising steps of, measuring component parameters, and mapping the measured component parameters to the service parameters.

26. **(Withdrawn)** The method of claim 19, wherein the service parameters and service levels are provided in a service level agreement.

27. **(Withdrawn)** The method of claim 26, wherein the service parameters are measured for a designated time and compared to the service levels in the service level agreement.

28-29. **(Cancelled)**

30. **(Previously Presented)** The method of claim 1, wherein the step of taking an action includes the step of generating a report indicating operational characteristics for the at least one of the plurality of services for a selected period.

31. **(Previously Presented)** The method of claim 1, wherein the step of taking an action includes the step of adjusting an operational characteristic of the network based on the determined service level of the at least one of the plurality of services.

32. **(Previously Presented)** The method of claim 1, wherein the step of taking an action includes the step of comparing a value of the service parameter to a stored value to determine the service level.

33. **(Previously Presented)** The method of claim 1, wherein the step of taking an action includes the step of calling a function to determine the service level, wherein the value serves as an argument for the function.

**Appendix B: Evidence Appendix**

NONE

**Appendix C: Related Proceedings Appendix**

NONE